

MANUFACTURING EXTENSION PARTNERSHIP

Success Stories from the Field

Samtech Corporation

Texas Manufacturing Assistance Center

Santech Industries Streamlines Processes Through Lean Implementation

Client Profile:

Santech Industries engineers replacement parts for specialized automotive after-markets. Originally a manufacturer of sealing materials for the aerospace, military, oil field, and semi-conductor industries, Santech now brings its full focus to automotive air conditioning applications. Founded in 1971, the company is based in Fort Worth, Texas and employs 24 people.

Situation:

Santech Industries and the Texas Manufacturing Assistance Center (TMAC), a NIST MEP network affiliate, have a long history of working together. TMAC and the Santech team have completed seven projects together since the relationship began, all focusing on the manufacturing or warehousing side of the business. Santech Industries decided that the time had come to tackle an administrative operation: the new parts implementation procedures. Once again, Santech asked TMAC for assistance.

Solution:

TMAC assessed Santech's new parts process and conducted its Lean Office 101 course for Santech's administrative staff. Under TMAC's guidance, the new parts implementation team created a value stream map (VSM) of the new products procedure. That mapping session highlighted the inefficiency of the new parts implementation process (known as Red Folder).

The Red Folder process is the last step in the new product development cycle. Santech uses folders to carry all the information, procedures, and parts (mostly thin gaskets) through the new parts process cycle. They are transported by hand from office to office in the order in which work is to be completed. Red folders indicate rush orders and take precedence over other incoming orders. However, over time, all the folders became red, resulting in chaos and missing or dropped orders. It was not unusual for Red Folders to go back and forth between offices at least twelve times before the information was ever input into the computer system. This inefficient tracking process caused significant delays and customer dissatisfaction.

TMAC's VSM for Santech indicated that functions could be combined and rearranged to eliminate the wastes incurred by excess transportation, motion, and waiting--three of the "eight wastes" targeted by lean manufacturing techniques. The team determined that an electronic document exchange system would eliminate most of the waiting and transportation time. The electronic

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document method also helped track the Red Folders and enabled multiple users to work on the same Red Folder simultaneously. A work-in-process (WIP) directory file allows all participants in the process to check the status of multiple Red Folders. The company maintains a hard copy Red Folder in which to file sample parts, but it no longer has to "tour the plant." It is filed in a central filing cabinet.

Results:

Reduced cycle time from days (or weeks) to hours.

Reduced average travel distance for a Red Folder from 371.5 feet to 131.3 feet.

Reduced the direct labor cost of moving the folders by more than \$3,400 annually.

Reduced the number of Red Folders in circulation from 540 to an average of 10.

Streamlined the process of bringing new products online.

Testimonial:

"The Texas Manufacturing Assistance Center's simple and cost-effective lean office project has greatly reduced the cycle time on our document flow for new parts. By using an electronic tracking system, we eliminated over 45 miles in wasted motion previously spent 'walking' our new parts folders from office to office. We've experienced a three-fold return on our investment."

Michael Deese, CEO